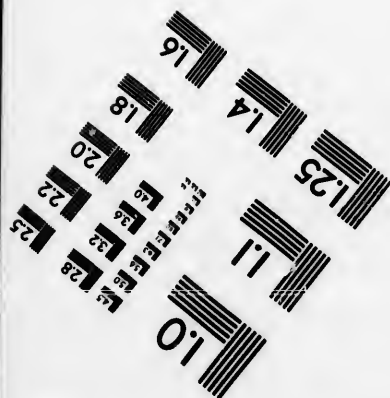
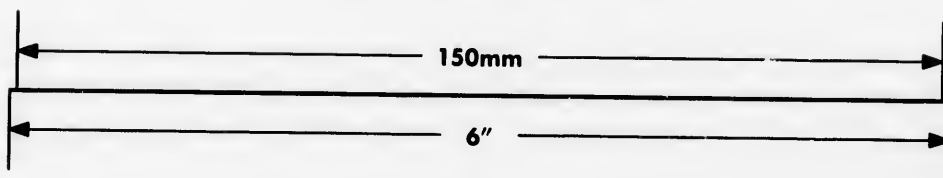
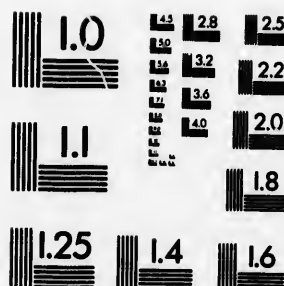
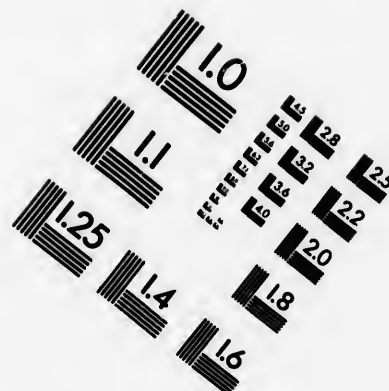
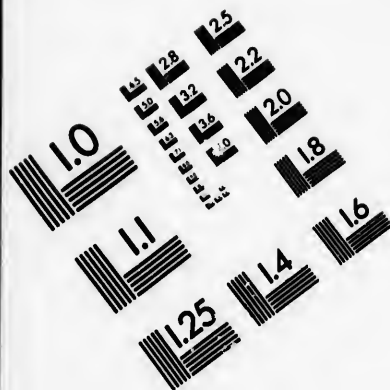
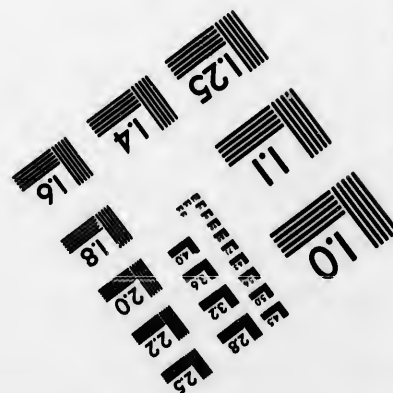


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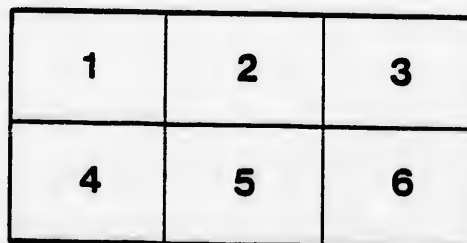
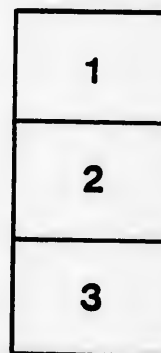
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BULLETIN **XCVII.**

EXPERIMENTS WITH WINTER WHEAT

By C. A. ZAVITZ, B.S.A., EXPERIMENTALIST

PUBLISHED BY THE ONTARIO DEPARTMENT OF AGRICULTURE

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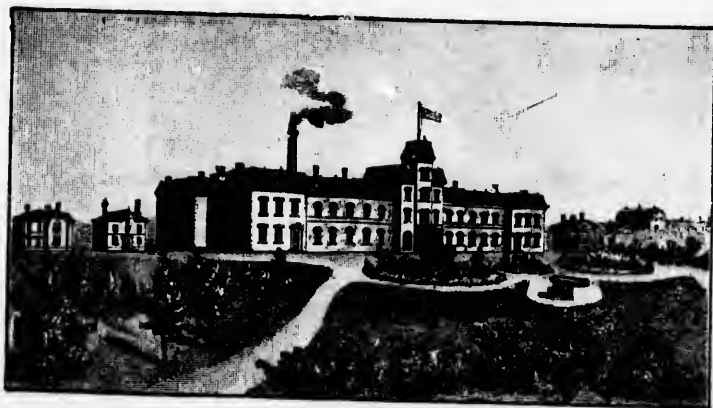


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BULLETIN XCVII.

EXPERIMENTS WITH WINTER WHEATS.

By C. A. ZAVITZ, B.S.A., EXPERIMENTALIST.

This bulletin contains the results of the experiments in connection with the growing of winter wheat carried on at the Ontario Agricultural College during the past season.

There were 178 plots used for the winter wheat experiments in 1894, these being divided off as follows: variety tests, 102 plots; dates of seeding, 36; methods of seeding, 12; selection of seed, 8; quantity of seed per acre, 6; sowing spring grain to act as a mulch for wheat, 4; and harvesting at different stages of maturity, 10. As the variety tests have been conducted for five years in succession and the rest of the experiments for only one or two years, this bulletin treats more particularly of the varieties grown than of the methods of cultivation.

CONDITIONS OF SOIL.

The field upon which the grain was grown is a good average clay loam, quite uniform in character, and has a gradual slope towards the northeast. The size of all the plots used was $\frac{1}{100}$ of an acre, with the exception of those for different dates of seeding, in which case it was $\frac{1}{15}$ of an acre. The yields per acre have been calculated from the actual results of the plots. The land was prepared on the bare fallow system, and received a dressing of fifteen tons of farmyard manure per acre in the summer of 1893. No other fertilizer was used. Four crops had been removed from the land since it had received farmyard manure previous to last year.

CONDITIONS OF SEASON AND GROWTH.

Seeding took place early in September, and during that month 1.3 inches of rain fell, which was slightly below the average of the

four years previous. The growth of the wheats in the autumn was good, and the amount killed out during the winter and early spring was small. April proved to be a very dry month, and May one of exceptionally wet weather; the growth of the wheat, however, was quite good throughout. The ripening of the grain took place between the 15th and the 23rd of July, which was fully three days earlier than in any of the four previous years. The trouble from both rust and smut was not serious this season.

Soon after the grain headed out, a storm caused the weak-strawed varieties to become considerably lodged, which interfered with the proper filling of the heads. To determine the effect produced by the lodging of the crop, an examination was made of four varieties, which were partly lodged about five weeks before the ripening season. From each of these varieties 1,000 heads were collected out of the standing grain and also 1,000 head out of the lodged portion of the crop. The sheaves were threshed separately and the results recorded, the following being the summary :

Condition of crop.	Weight of grain from 4,000 heads.	Weight of 4,000 kernels of grain.
	ozs.	drs.
Standing	121½	82
Lodged	67	73

Providing the plants which lodged were equal in every respect to those which did not lodge, these results go to show that the loss to the grain through lodging was about 4.5 per cent. in yield and 11 per cent. in quality.

VARIETIES.

This bulletin gives the particulars of 80 varieties of winter wheat grown in 1894 upon plots exactly similar in size and situated side by side. Paths three feet wide were left between the plots. Seeding took place on September 2nd with all the varieties excepting Nos. 56, 58 and 65, which were sown three days later, and No. 54, which was sown seven days later. The grain was sown by hand at the rate of 2 bushels per acre, and the land was then harrowed. The average yield in 1894 was superior to that of 1890, 1892 or 1893, but was not equal to that of 1891.

The following table gives the average results of the winter wheat tests for each of the past five years :

Year.	Number of varieties grown.	Average weight of grain per measured bushel.	Average yield of straw per acre.	Average yield of grain per acre. (bu.=60 lb.)
		lb.	tons.	bush.
1890.....	15	60.0	2.4	30.9
1891.....	23	63.3	2.0	52.9
1892.....	44	60.5	3.2	42.6
1893.....	52	58.4	2.1	29.9
1894.....	80	60.8	4.0	36.7

It will be noticed that the yield of straw per acre in 1894 was double that of 1891, and yet the yield of grain for 1891 was the highest of the five years. The order of the yield per acre for the five years is the same as that of the weight per measured bushel.

Characteristics and yields of eighty varieties of winter wheat.

Varieties.	Nature of head.	Color of grain.	Results for 1894.						Average results for number of years grown.		
			Date of maturity.	Per cent. of straw lodged.	Weight per measured bushel.	Straw per acre.	Grain per acre.	Weight per measured bushel.	Straw per acre.	Grain per acre.	
GROWN FOR FIVE YEARS.											
			July		lb.	tons	bu.	lb.	tons	bu.	
1 Early Red Clawson	*Ba	R	18	77	58.9	4.9	55.3	59.0	3.2	46.5	
2 Surprise	Ba	W	20	35	59.2	3.7	48.3	59.8	2.9	46.0	
3 Golden Drop	Ba	R	20	72	62.9	4.4	49.3	61.9	3.1	44.0	
4 Red Velvet Chaff	Ba	R	22	62	58.0	5.1	49.3	59.5	3.2	42.8	
5 Bonnell or Landreth	Ba	W	19	37	59.4	4.5	53.2	59.7	3.1	42.6	
6 Standard	Ba	W	18	7	59.9	3.7	58.3	59.2	2.8	42.3	
7 Golden Cross or Volunteer	Be	R	23	77	59.4	5.2	40.5	60.5	3.1	41.6	
8 Rogers	Ba	R	23	67	59.4	5.0	43.0	60.4	3.1	41.5	
9 Seneca or Clawson	Ba	W	19	55	59.7	4.3	53.0	59.6	3.0	41.0	
10 Manchester	Ba	R	19	57	61.1	4.7	46.5	61.1	2.9	40.9	
11 Martin Amber	Ba	W	24	57	60.9	4.4	49.1	60.6	3.0	40.6	
12 Hybrid Mediterranean	Be	R	21	67	61.1	4.8	39.1	61.2	3.2	40.3	
13 Lancaster	Be	R	19	92	60.7	4.8	42.5	61.7	3.2	39.1	
14 Red Lion	Be	R	16	95	62.0	4.9	42.4	61.4	3.2	38.8	
15 New Monarch	Ba	R	17	60	61.1	4.1	44.9	60.2	2.8	35.5	

* The abbreviations mean : Ba, Bald ; Be, Bearded ; R, Red, and W, White.

Characteristics and yields of eighty varieties of winter wheat. *— Con.*

Varieties.	Nature of head.	Color of grain.	Results for 1894.						Average re- sults for num- ber of years grown.		
			Date of maturity.	Per cent. of straw lodged.	Weight per meas- ured bushel.	Straw per acre.	Grain per acre.	Weight per meas- ured bushel.	Straw per acre.	Grain per acre.	
GROWN FOR FOUR YEARS.					lb.	tons	bu.	lb.	tons	bu.	
16 American Bronze.....	Ba	R	July 17	0	61.3	3.7	52.7	59.7	3.1	48.4	
17 Egyptian.....	Be	R	17	55	61.5	3.6	54.2	61.4	2.9	48.3	
18 Jones' Winter Fife.....	Ba	R	17	7	61.0	3.9	59.6	60.6	2.6	47.4	
19 Bulgarian.....	Be	W	17	42	62.0	3.9	53.9	62.3	2.7	45.6	
20 Canadian Velvet Chaff.....	Ba	W	19	4	59.1	3.5	57.0	58.4	2.7	45.4	
21 Garfield or Natural Cross.....	Ba	W	21	4	61.6	3.3	57.6	60.0	2.7	45.3	
22 Winter Pearl.....	Ba	W	21	2	62.1	3.3	52.8	60.8	2.7	43.7	
23 Democrat.....	Be	W	17	27	62.3	2.7	49.5	62.1	2.7	41.9	
GROWN FOR THREE YEARS.											
24 Dawson's Golden Chaff.....	Ba	W	18	8	61.1	4.1	65.2	59.3	3.3	51.5	
25 Reliable.....	Be	R	17	50	62.4	4.2	62.5	61.6	3.1	44.0	
26 Russian Amber.....	Be	R	17	50	61.5	3.6	53.3	61.2	2.9	43.0	
27 Walker's Reliable.....	Be	R	18	50	62.3	4.4	53.6	60.8	3.1	42.6	
28 Valley.....	Be	R	16	32	61.9	4.2	55.6	60.7	2.9	41.8	
29 Rumsey.....	Be	W	19	45	61.0	4.2	45.0	60.7	3.1	39.5	
30 Rutherford.....	Be	R	21	50	61.1	4.9	42.1	59.7	3.5	39.1	
31 Fultz.....	Ba	R	18	11	63.8	2.8	48.7	62.4	2.4	38.7	
32 Genesee.....	Be	W	19	30	60.9	3.8	48.8	60.2	2.9	38.2	
33 Mediterranean.....	Be	R	18	50	62.5	4.2	33.1	61.8	3.5	38.1	
34 Hybrid Diehl.....	Ba	W	19	16	61.3	3.7	51.1	59.0	2.6	37.8	
35 Monette.....	Ba	R	19	25	60.2	3.7	46.3	59.1	2.9	37.0	
36 Manilla.....	Ba	W	20	11	59.3	3.6	49.4	57.3	2.9	36.7	
37 Longberry Red.....	Be	R	18	92	60.4	4.2	41.0	60.5	3.1	36.5	
38 Velvet Chaff.....	Be	R	16	0	63.6	3.0	40.5	62.4	2.5	36.7	
39 Red Wonder.....	Be	R	21	50	61.1	4.8	31.3	61.7	3.6	35.3	
40 Deitz Longberry.....	Be	R	20	16	62.2	3.2	25.2	61.9	2.8	34.7	
41 Fulcaster.....	Be	R	19	47	60.8	4.8	29.4	62.2	3.2	34.4	
42 Scott.....	Ba	R	19	42	60.1	3.4	44.6	59.6	2.5	33.3	
43 Red Russian.....	Ba	R	21	0	61.9	2.8	40.3	59.8	2.3	29.9	
GROWN FOR TWO YEARS.											
44 Early White Leader.....	Ba	W	22	15	57.9	3.6	57.2	56.2	2.7	43.6	
45 South Sea.....	Ba	W	20	7	60.3	3.4	50.1	60.2	2.3	40.6	
46 Soules.....	Ba	W	17	20	57.8	4.5	52.5	55.9	3.2	39.4	
47 Eureka.....	Ba	W	17	17	58.1	3.6	47.2	57.1	2.7	37.4	
48 Stewart's Champion.....	Ba	R	18	15	59.1	4.0	47.3	57.5	3.2	36.6	
49 White Star.....	Be	R	19	20	60.1	4.0	44.5	59.5	2.5	34.8	
50 Treadwell.....	Be	W	17	20	61.1	3.6	47.9	59.1	2.4	32.2	
51 British Columbia.....	Ba	R	22	0	58.6	3.2	45.8	55.9	2.4	30.4	

Characteristics and yields of eighty varieties of winter wheat.—*Con.*

Con.

page re-
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f years
own.

Straw per acre.
Grain per acre.

bu.

1 48.4
9 48.3
6 47.4
7 45.6
7 45.4
7 45.3
7 43.7
7 41.9

3 51.5
1 44.0
9 43.0
1 42.6
9 41.8
1 39.5
5 39.1
4 38.7
9 38.2
5 38.1
3 37.8
9 37.0
9 36.7
3 36.5
3 35.7
3 35.3
3 34.7
3 34.4
3 33.3
2 30.9

Varieties.	Nature of head.	Color of grain.	Results for 1894.						Average results for number of years grown.		
			Date of maturity.	Per cent. of straw lodged.	Weight per measured bushel.	Straw per acre.	Grain per acre.	Weight per measured bushel.	Straw per acre.	Grain per acre.	
GROWN FOR ONE YEAR.											
			July		lb.	tons	bu.	lb.	tons	bu.	
52 Early Genesee Giant	Be	W	19	15	60.9	4.0	56.9	60.9	4.0	56.9	
53 Early Ripe	Ba	R	21	42	61.5	4.2	55.1	61.5	4.2	55.1	
54 Pride of Genesee	Be	R	19	40	60.5	3.8	51.4	60.5	3.8	51.4	
55 Poole	Ba	R	18	42	61.6	4.0	50.7	61.6	4.0	50.7	
56 New Columbia	Ba	R	16	15	58.2	4.0	50.1	58.2	4.0	50.1	
57 Siberian	Ba	R	23	35	62.9	4.1	49.6	62.9	4.1	49.6	
58 Rudy	Be	R	23	77	59.6	3.8	48.9	59.6	3.8	48.9	
59 Red May	Ba	R	17	20	62.5	4.0	48.4	62.5	4.0	48.4	
60 Jones' Square Head	Ba	W	19	0	60.3	3.2	48.3	60.3	3.2	48.3	
61 Arnold's Hybrid	Be	R	16	22	62.2	3.9	48.2	62.2	3.9	48.2	
62 Tasmania Red	Be	R	19	85	61.9	4.4	47.1	61.9	4.3	47.1	
63 Turkish Red	Be	R	17	40	62.3	3.6	46.6	62.3	3.6	46.6	
64 McPherson	Ba	R	18	30	61.9	3.9	45.1	61.9	3.9	45.1	
65 Kentucky Giant	Be	R	16	70	58.4	3.9	45.1	58.4	3.9	45.1	
66 Tuscan Island	Be	R	17	65	59.8	3.9	44.8	59.8	3.9	44.8	
67 Hindostan	Be	R	21	45	61.5	4.0	44.5	61.5	4.0	44.5	
68 Zimmerman	Ba	R	18	2	63.0	2.9	44.3	63.0	2.9	44.3	
69 Egyptian Amber	Be	R	18	65	60.3	4.5	44.0	60.3	4.5	44.0	
70 Imperial Amber	Be	R	21	90	59.0	4.9	43.4	59.0	4.9	43.4	
71 Andrew's No. 4	Be	R	22	47	60.0	4.5	41.4	60.0	4.5	41.4	
72 Emporium	Ba	R	23	45	58.0	3.9	41.2	58.0	3.9	41.2	
73 Penquit's Velvet Chaff	Be	R	19	2	62.1	3.6	40.4	62.1	3.6	40.4	
74 Geneva	Be	R	17	67	61.6	4.1	40.1	61.6	4.1	40.1	
75 Bissell	Be	R	15	72	60.8	4.0	40.0	60.8	4.0	40.0	
76 Simcoe Red	Be	R	17	60	57.0	4.3	38.3	57.0	4.3	38.3	
77 Currell	Ba	R	16	40	61.5	4.2	37.2	61.5	4.2	37.2	
78 Currell's Prolific	Ba	R	16	50	61.5	4.3	36.7	61.5	4.3	36.7	
79 Bullard's Velvet Chaff	Ba	R	23	0	62.9	2.3	31.6	62.9	2.3	31.6	
80 Golden Tankard	Ba	R	17	92	59.4	5.2	31.5	59.4	5.2	31.5	

The results of the 80 varieties of winter wheat grown in 1894 are placed in tabulated form in such a way that the reader can compare the different kinds very easily. Starting at the left hand side of the table, columns 1 and 2 give the numbers and names of all the varieties; 2 and 3 refer to their characteristics; 5, 6, 7, 8 and 9 give results for 1894, and 10, 11 and 12 give average results for the num-

43.6
40.6
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32.2
30.4

ber of years the varieties have been grown in the Experimental Department. The varieties are arranged in the order of their average yield per acre for the number of years grown, as indicated by the last column in the table, to which the reader's attention is especially directed. The great advantage of having the results of *all* the varieties here recorded is that any farmer may be enabled to compare the varieties with which he is not familiar with those which have been grown by himself or by his neighbors.

The following remarks are made upon the varieties which have given the largest yields of grain per acre for the number of years they have been grown on the plots:

Early Red Clawson. This variety gave the largest average yield of grain per acre, and also the lowest average weight of grain per measured bushel among fifteen varieties grown for five years. The crop is much inclined to lodge in unfavorable seasons, but when it stands well, the bald heads, red chaff, and white straw give this variety an attractive appearance when seen standing in the field. It will be remembered that the Early Red Clawson stood third in average yield per acre in the co-operative experiments over Ontario for 1893, at which time eleven varieties were tested.

American Bronze. The special feature of the American Bronze is that the crop usually stands well, while that of many other varieties becomes badly lodged. It is also a good yielder, and the average weight of grain per measured bushel for five years is nearly up to the standard. The chaff and straw are white, the heads bald, and the grains large, fairly long, and of an amber color. Among the eighty varieties of winter wheat grown on plots in 1894, the American Bronze was one of the finest looking at the time of harvest. I may add that this variety is somewhat subject to rust in unfavorable seasons.

Dawson's Golden Chaff. In yield of grain per acre, the Dawson's Golden Chaff takes the lead among all the varieties which have been tested at this station. In 1894 it gave 18.5 bushels per acre more than the average of the eighty varieties grown, and 5.6 bushels per acre more than the variety which stood next below it in yield. This wheat has been grown on the plots for three years, and leads in yield of grain among the forty-three varieties grown for that length of time. In the co-operative experiments over Ontario in 1893, when eleven varieties of winter wheat were tested, the Dawson's Golden Chaff not only gave the largest average yield of grain in the sixty experiments, but also headed the list in thirty-five out of sixty of the individual experiments. In three years trials, at the Experiment

Station, the Dawson's Golden Chaff stands exactly equal with the American Bronze in strength of straw, these two being the stiffest strawed varieties. The average weight of grain per measured bushel for the Dawson's Golden Chaff during three years is 59.3 lb., which is also exactly the same as the average of the fifteen varieties of white wheat grown for the same length of time. This variety is apt to rust in some seasons; but it has been quite free from smut at this place, although some trouble with smut in this variety is reported from one or two of the localities where it is now grown. The Dawson's Golden Chaff is quite distinct from any of the other varieties grown, and when ripe most closely resembles the Standard and the Clawson (white) varieties. The straw is medium in length, and the crop has a golden appearance. In 1894, it was grown on eleven plots in the Experimental Department, and on about four acres in the Farm Department; and was unanimously pronounced the most attractive variety at this station by five judges who examined the standing grain.

Early White Leader. Although this variety gave the largest average yield of grain for two years, among eight varieties grown on the plots in 1893 for the first time, the weight of the grain per measured bushel was the third lowest, among eighty varieties grown this season. It possesses long straw; long, bald heads; white chaff; and white grain of medium size.

Early Genesee Giant. This variety has been grown on the plots for two years, but, owing to the lateness of receiving the seed in 1892, the results were not reported the first year. It stood fourth in general appearance of standing grain, and seventh in yield of threshed grain, among eighty varieties grown this year. The straw is tall and fairly strong, the heads bearded and quite compact, the chaff red, and the grain white.

The above mentioned varieties have all been offered by leading seedsmen over Ontario for at least two years, with the exception of the Dawson's Golden Chaff which was not advertised in the seedsmen's catalogues previous to this season. In 1881 Mr. Robert Dawson, of Paris, Ont., had a field of the Seneca or Clawson in which he found one plant quite distinct and much superior to the rest of the crop. Mr. Dawson sowed the grain from this plant, and has continued to grow this wheat since that time. This variety has been extensively grown in the vicinity of Paris for the past few years; but it was practically unknown over Ontario until tested at the Experiment Station along with many old and new varieties, and the comparative results published.

The following table gives the average results of white and red wheats grown side by side for five years in succession :

Years.	Average results of white wheats.				Average results of red wheats.			
	Number of varieties.	Weight per measured bushel.	Straw per acre.	Grain per acre.	Number of varieties.	Weight per measured bushel.	Straw per acre.	Grain per acre.
1890	5	lb. 60.1	tons. 2.3	bush. 30.3	10	lb. 59.9	tons. 2.5	bush. 31.2
1891	10	62.7	2.1	55.9	13	63.7	1.9	50.7
1892	15	59.6	3.2	40.0	29	61.1	3.2	44.0
1893	20	57.4	2.0	29.6	32	59.0	2.2	30.2
1894	22	60.3	3.8	52.4	58	60.9	4.1	44.5
Average ..		60.0	2.7	41.6		60.9	2.8	40.1

In the above summary no separate classification was made for the amber, bronze and golden shades of color which are sometimes applied to winter wheat. These were included with the red wheats. The white wheats gave an average of $1\frac{1}{2}$ bushels per acre more than the red varieties, but the latter surpassed the former in weight per measured bushel of grain by nearly one pound.

The following table gives the average results of bald and bearded wheats grown side by side for five years in succession :

Years.	Average results of bald wheats.				Average results of bearded wheats.			
	Number of varieties.	Weight per measured bushel.	Straw per acre.	Grain per acre.	Number of varieties.	Weight per measured bushel.	Straw per acre.	Grain per acre.
1890	11	lb. 59.9	tons. 2.3	bu. 30.6	4	lb. 60.1	tons. 2.7	bush. 31.7
1891	16	62.9	2.0	55.9	7	64.3	1.9	46.1
1892	24	59.6	3.3	40.2	20	61.6	3.2	46.5
1893	30	57.4	2.2	30.0	22	59.8	2.0	29.9
1894	42	60.5	3.9	48.7	38	61.0	4.1	44.4
Average ..		60.1	2.7	41.1		61.4	2.8	39.5

Varieties possessing very short beards are classified as bald wheats. The bearded varieties gave the heaviest weight of grain per measured

bushel for each year, and the poorest yield of grain per acre for three out of the five years. The number of the bald and bearded varieties is about equal, while in the case of the white and the red grained wheats, the latter has more than double the number as compared with the former.

EXPERIMENTS OF WHEAT CULTIVATION.

Concise statements regarding the experiments in wheat cultivation.

Different Dates of Seeding. The average results for two years in sowing winter wheat on September 2nd, September 9th, and September 17th are slightly in favor of the middle date; but, as the crop from the first sown grain was the most lodged in 1894, future experiments may give different results.

Methods of Seeding. By sowing winter wheat from all the tubes of a grain drill, the average yield per acre was 44.6 bushels; from every second tube of a grain drill, 42.2 bushels; and by broadcasting with the hand, 43.6 bushels.

Selection of Seed. Several experiments in the selection of seed grain were conducted, but they are too complicated to report in this bulletin. It might be mentioned, however, that in 1894 plump seed produced heavier grain than shrunken seed; but the difference in the yield per acre was very small.

Different Quantities of Seed per Acre. Two varieties of winter wheat were each sown on small plots at the rate 1, $1\frac{1}{2}$ and 2 bushels of seed per acre, and the average results show that the largest yield was obtained from the thickest seeding, but the best quality of grain was from the medium amount of seed. The proper quantity of seed to sow can be best determined by the various wheat growers themselves, as much depends upon variety of grain, fertility of the soil, etc.

Sowing Spring Barley in the Autumn, to Form a Mulch for Wheat in Winter. Two varieties of wheat were sown with and without spring barley on September 5th, 1893, and the results go to show that slightly better yields were obtained when the barley was not used.

Cutting Grain at Different Stages of Maturity. Two varieties of winter wheat which were considered about right for cutting by the 19th of July, were cut on July 4th, 11th, 19th, and 25th, and August 2nd. The heaviest grain was from the cutting on July 19th, and the largest yield of grain on August 2nd. The lowest results, in both these particulars, were from the first cutting.

CONCLUSIONS.

1. The average results of winter wheat grown on the experimental plots for five years in succession are as follows: Weight of grain per measured bushel, 60.6 lbs ; yield of straw per acre, 2.74 tons ; and yield of grain per acre, 40.6 bushels.
 2. Among eighty varieties of winter wheat tested, the following have made high records: (1) Dawson's Golden Chaff; (2) American Bronze; (3) Early Genesee Giant; (4) Surprise; (5) Early Red Clawson; (6) Golden Drop; (7) Jones' Winter Fife; (8) Bulgarian; (9) Early Ripe; and (10) Pride of Genesee.
 3. The Dawson's Golden Chaff has made the best record of all the varieties of winter wheat tested in the Experimental Department.
 4. Within certain limits, the amount of straw produced by a winter wheat is a poor indication of the yield of grain.
 5. For five years in succession the bearded wheats gave a larger average weight per measured bushel, than the bald varieties.
 6. The white wheats have given the best results in favorable years, and the red wheats in unfavorable years.
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DISTRIBUTION OF SEED FOR TESTING PURPOSES.

In the subjoined table will be found the different sets of varieties of wheats, which will be sent free, by mail, in half-pound lots of each variety, to farmers applying for them, who will be able to test them carefully and report the results after harvest next year. The seed will be sent out in the order of the applications received, as long as the supply lasts.

Two Sets of Winter Wheat for Co-Operative Tests.

I.

Dawson's Golden Chaff.
Early Red Clawson.
Jones' Winter Fife.
Surprise.
American Bronze.

II.

Dawson's Golden Chaff.
Early White Leader.
Early Genesee Giant.
Early Ripe.
Pride of Genesee.

Each person wishing one of these sets should write to the Experimentalist, Agricultural College, Guelph, *mentioning which set he desires*, and the grain, with instructions for testing and blank forms on which to report, will be forwarded free of cost to his address, until the limited supply becomes exhausted.

SEED WHEAT.

The Dawson's Golden Chaff and American Bronze varieties of winter wheat were grown in the Farm Department in 1894. A limited quantity of these two varieties have been offered for sale this season at \$1.00 per bushel, including bags.

The supply is now completely exhausted, owing to the large demand.

